

## ABSTRACT

An inexpensive substrate for thin film solar cells having improved performance of a thin film solar cell, and a manufacturing method thereof are provided by increasing light trapping effect due to effective increase in unevenness of a substrate for thin film solar cells. Furthermore, a thin film solar cell having improved performance using the substrate is provided. A substrate for thin film solar cells of the present invention has a transparent insulating substrate and a transparent electrode layer deposited thereon including at least zinc oxide (ZnO), the transparent insulating substrate has a fine surface unevenness having a root-mean-square deviation of the surface (RMS) 5 to 50 nm in an interface by a side of the transparent electrode layer, a projected area thereof consists of a curved surface, and furthermore a haze ratio or a ratio of a diffuse transmittance to a total transmittance as an index of unevenness of a substrate may be set at not less than 20% measured using a C light source. And thereby light trapping effect may effectively occur to improve performance of the thin film solar cell.